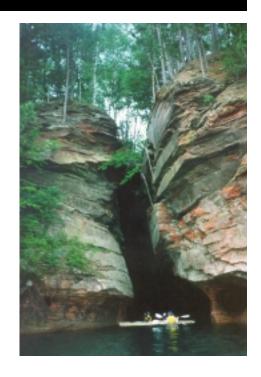
Apostle Islands National Lakeshore



Sea Caves



The stories of Apostle Islands National Lakeshore reveal themselves along edges where water meets land, field meets forest, culture meets culture, and past meets future. Centuries of wave action, freezing, and thawing have sculpted shorelines throughout the Apostles. Some of the Great Lakes' most spectacular scenery occurs where nature has carved intricate caves into sandstone of the Devils Island Formation. Delicate arches, vaulted chambers, and hidden passageways honeycomb cliffs on the north shore of Devils Island, Swallow Point on Sand Island, and northeast of Cornucopia on the mainland. Visitors are drawn to Apostle Islands National Lakeshore in summer and winter to visit the sea caves and witness Lake Superior's ever-changing handiwork.

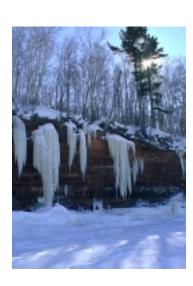


Sea Cave Creation

The story of the Devils Island Formation begins over one billion years ago. At that time, rivers and streams carried sandy sediments from hills in what is now southern Minnesota to a basin where the Apostle Islands are now found. These rivers, known as braided streams, carried sediment that slowly filled the basin, forming a sand flat. When that occurred, this area was covered with many shallow ponds, some only a few inches deep, connected by shallow channels. Sand deposits in this environment were thinly-bedded, fine-grained, and extensively ripple marked. These deposits became the sandstone known as the Devils Island Formation.

Where wave action erodes and undercuts the base of a cliff, a feature known as a reentrant develops. Sea caves are produced when a number of reentrants join behind the face of a cliff, leaving behind supporting pillars and arches. They develop most easily where the layers comprising a rock formation are very thin. Cliffs carved from exposures of the Devils Island Formation at Devils Island, Sand Island, and on the mainland feature thin layers of sandstone. This easily eroded formation is the primary source of Apostle Islands National Lakeshore's spectacular array of sea caves.

Through the Seasons



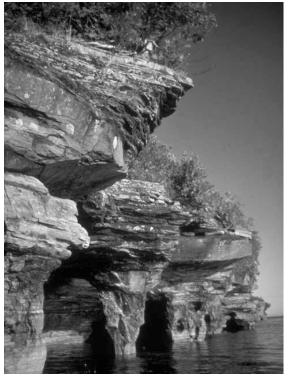
The beauty of the caves varies dramatically with the season. In February, the lake near the mainland sea caves is often a frozen white expanse. Lakeshore cliffs form a crimson border to this arctic landscape. Pillars of ice extend to the cliff tops where waterfalls have hardened in place. Frozen lakewater encrusts the base of the cliffs. Inside the caves is a fairyland of needle-like icicles. The formations change from chamber to chamber and from day to day.

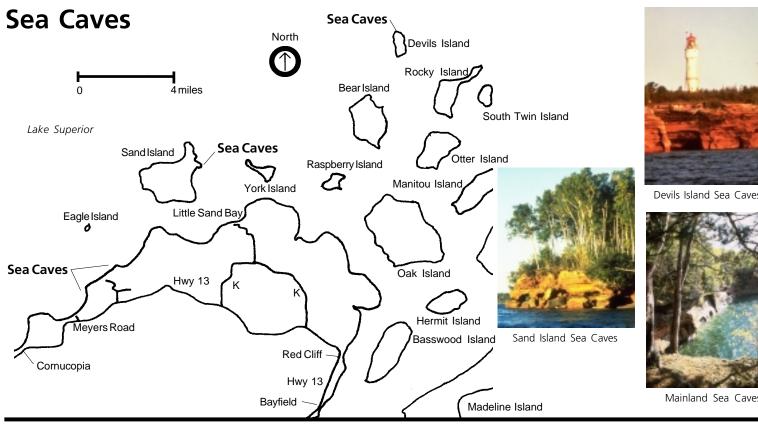






In summer, the variegated red sandstone is sandwiched between sapphire lake and emerald forests. Large waves generate plumes of spray and thunderous explosions as they surge into the sea caves. While visitors must enjoy these scenes from a distance, such is not the case when the lake is calm. Under these conditions, kayakers can explore the caves' deepest recesses while listening to the murmur of water against rock.





Getting There

In summer, the sea caves are best seen by boat. The Apostle Islands Cruise Service offers daily trips past the Devils Island sea caves from late May through the middle of October. On Friday evenings in July and August, the concessionaire also offers a sunset cruise to the mainland sea caves. Kayak outfitters guide day trips to the mainland sea caves throughout the summer. Kayakers with their own boats wishing to visit the mainland sea caves will find a good launch point at the end of Meyers Road. Meyers Road is located about 18 miles west of Bayfield off Highway 13. Boaters wishing to visit the Sand Island caves will find a boat launch (fee) at Little Sand Bay, 13 miles north of Bayfield. The Swallow Point sea caves on the east side of Sand Island are about four miles across the lake from Little Sand Bay. The Devils Island sea caves are 14 water miles from Little Sand Bay or 22 water miles from Bayfield.

Visitors to the park's mainland unit who do not have a boat can view portions of the mainland sea caves from the Lakeshore Trail. The trailhead is adjacent to the parking lot at the end of Meyers Road. A rugged two mile hike along the trail brings hikers to the top of the cliffs above the sea caves. The trail offers several views of the caves from the clifftops.

To reach the mainland sea caves in winter, visitors should park in the lot at the end of Meyers Road. The bay near Meyers Beach is frequently covered with ice for some or all of the period from late January to late-March. If the bay is sufficiently frozen, visitors can walk, snowshoe, or ski northeast across the ice to the cliffs. Snowmobile use is not permitted within the park boundary near the mainland sea caves. The boundary lies 1/4 mile off the mainland shoreline. The caves begin about one mile from Meyers Beach.

Safety



Park ranger checks ice depth at the mainland sea caves.

Visitors to the caves face a number of potential hazards. Boaters should avoid sea caves when conditions are rough. Check the marine weather forecast before leaving on your trip. Personal flotation devices should be worn. Kayakers should not visit the caves alone. When walking along cliff tops remember that this is an eroding shoreline. Undercut ledges could give way without warning. Stay on trails and keep back from the edge. Please do not throw objects from the tops of cliffs. This is hazardous for boaters and paddlers near the caves.

Winter visitors need to be especially careful. Warm clothing is a must. Sub-zero temperatures and bitter wind-chills are common. Walking on ice can be

extremely dangerous and demands caution: when in doubt, don't go out. If you go, watch for newly formed cracks or soft spots in the ice, wear sturdy boots to prevent slipping, carry a ski pole or walking stick, and watch for any signs of falling ice near the caves. Visitors with dogs must keep them on a leash that is no more than six feet long.

People planning a winter trip to the park should call ahead for information on current ice conditions. To learn about ice conditions at the mainland sea caves, call the Apostle Islands Ice Line at (715)779-3397 ext. 499. For general information and up-to-date weather conditions call (715)779-3397 ext. 399. Ice conditions can change rapidly, so keep safety in mind at all times.



